

Pro/ENGINEER® Expert Framework Extension

GO FROM DESIGN TO FABRICATION IN RECORD TIME

With Pro/ENGINEER Expert Framework Extension (EFX), engineers and designers can create structural frameworks much faster using powerful, simple-to-use features that are tailored to specific framework design tasks.

An integral part of the Pro/ENGINEER product family, Pro/ENGINEER EFX provides designers and engineers with a means to dramatically improve the accuracy and productivity of defining structural framework assemblies. Because this module is native to Pro/ENGINEER, you can quickly and easily share this intelligent 3D model throughout all phases of the project—design, detailing, analysis, fabrication, and final assembly. Now you can achieve faster structural framework definition and meet or beat even the most aggressive project deadlines. Add Pro/ENGINEER EFX to your cache of design tools and dramatically reduce the time to create accurate structures, frames, or assembly lines compared to 2D CAD and traditional 3D CAD solid modeling methods.



Putting together structures using Pro/ENGINEER Expert Framework eliminates fit up errors, saves valuable engineering time, and reduces the cost of development.

Key Capabilities and Benefits

Unified, Integral Design Environment

- Fully associative modeling ensures that design changes are reflected throughout the design process
- Single digital definition – incorporating all manufacturing information – eliminates management of additional files
- Eliminate time-consuming data translation between software applications

Simple

- Easy to learn and use
- Automates many tasks – significantly reducing design time
- 100% parametric definition speeds design of a wide variety of framework sections

Powerful

- Quickly define corner joints and nodes between virtually any section
- Eliminate costly changes due to fit up problems or rework

- Fully associative definition adapts instantly to any design change no matter how difficult
- Seamless integration with Pro/ENGINEER Mechanica for structural analysis
- Interface to other analysis systems via *.SDNF and *.DSTV
- Easily place screws and dowels with an interactive user interface

Convenient

- Comprehensive library of sections, connections and joints, accelerates framework creation
- Extensive library of stairs, ladders and safety cages accelerates design of access and walkways
- Choose from a wide variety of steel and aluminum profiles, angles, endplates, screws, and more
- Create a library of your own unique components

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Productive

- Optimized user interface reflects the structural framework design process
- Reduce scrap by using appropriate connections, joints, and assembly methods
- Save on material costs through exact 'as-built' representation of the structural framework
- Incorporate manufacturing and fabrication data into the framework definition to speed assembly
- Precise 3D structural framework definition ensures fabrication of assembly is right the first time by detecting design and production problems before structures are built

Capabilities and Specifications

Supports Pro/ENGINEER Top-Down Design Process

- Start with conceptual design to create the framework skeleton using datum curves or imported geometry
- Assemble beams from a library of standard types and sizes
- Design joints between beams by selecting different corner types
- Design connector elements by selecting from a library of brackets, endplates, screws, etc.
- Define weldments for manufacturing
- Create BOM information and beam drawings automatically

Wide Variety of Uses

Steel

- Industrial machinery
- Cranes and elevators
- Marine structures
- Buildings

Structures with standard aluminum extrusions

- Handling and packaging machines
- Conveyor systems
- Assembly lines
- Ladders and cages

Structures with custom beams

- Windows and doors
- Facades
- Roofs

Designing connections between beams

- Quick and easy assembly of connector elements
- All necessary features and modifications are made inside the beam parts – not assembly features
- Includes a library with connector elements including endplates, angles, brackets and screws
- Add company-specific connectors to the library



Pro/ENGINEER Expert Framework is the perfect tool for a variety of applications, including building structures, machine framework, and assembly lines.

Other Capabilities

- Automatic BOM creation, including stock tables
- Create weldments regardless of assembly structure
- Automatic creation of engineering drawings

Language Support

- English, German, French, Italian, Spanish, Japanese, Chinese (Simplified and Traditional), Korean

Platform Requirements

- Microsoft Windows (XP and Vista)
- See www.ptc.com for specific Operating System levels

The Pro/ENGINEER Advantage

The Pro/ENGINEER family of CAD/CAM/CAE solutions delivers a distinct advantage for engineers and designers because every Pro/ENGINEER application is fully associative. That means any change made to the design is automatically reflected in all downstream deliverables – without any translation of model information between applications. By eliminating data translation, you not only save time, but you also avoid the possibility of translation errors in your design. Pro/ENGINEER Expert Framework Extension is the first choice of engineers and designers because no other 3D package offers the power and speed for structural framework design.

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